



March 18, 2003

CH2M HILL

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Ms. Kristy Chew  
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California Energy Commission  
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RE: Data Responses, Informal Set 14  
Cosumnes Power Plant (01-AFC-19)

On behalf of the Sacramento Municipal Utility District, please find attached 12 copies and one original of the Informal Data Responses, Set 14. This filing contains the following exhibits from the March 13<sup>th</sup> and 14<sup>th</sup> hearings:

Air Quality Exhibits (3 documents)

Exhibit 1: Aerial Photo of CPP and surrounding area  
Exhibit 2: Aerial Photo of Rancho Seco Lake area  
Exhibit 3: 1 page table of CPP Operations Phase Traffic Projections  
Exhibit 4: 11 x 17 (color) General Construction Site Layout

Please call me if you have any questions.

Sincerely,

CH2M HILL

A handwritten signature in blue ink, reading "John L. Carrier".

John L. Carrier, J.D.  
Program Manager

c: Colin Taylor/SMUD  
Kevin Hudson/SMUD  
Steve Cohn/SMUD

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# **COSUMNES POWER PLANT (01-AFC-19)**

## **INFORMAL DATA RESPONSE, SET 14 (HEARING EXHIBITS)**

Submitted by  
**SACRAMENTO MUNICIPAL  
UTILITY DISTRICT (SMUD)**

March 17, 2003



2485 Natomas Park Drive, Suite 600  
Sacramento, California 95833-2937

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## **Air Quality Exhibits**

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### Summary of Wind Data - Sacramento Executive Airport

Year	Total No. of Hours	No. of Hours Exceeding 15 mph Threshold	No. of Hours Exceeding 25 mph Threshold	Total No. of Work Hours (6 am to 6 pm)	No. of Work Hours Exceeding 15 mph Threshold	No. of Work Hours Exceeding 25 mph Threshold
1985	8760	1042	19	4380	716	16
1986	8760	1196	26	4380	821	13
1987	8760	1166	25	4380	768	20
1988	8784	1137	46	4392	767	39
1989	8760	877	6	4380	594	6
Average	8765	1084	24	4382	733	19
Year		% of Hours Exceeding 15 mph Threshold	% of Hours Exceeding 25 mph Threshold		% of Working Hours Exceeding 15 mph Threshold	% of Working Hours Exceeding 25 mph Threshold
1985		11.89	0.22		8.17	0.18
1986		13.65	0.30		9.37	0.15
1987		13.31	0.29		8.77	0.23
1988		12.94	0.52		8.73	0.44
1989		10.01	0.07		6.78	0.07
Total		12.4	0.3		8.4	0.2

## **Applicant Comments Regarding Proposed Condition AQ-SC8**

- AQ-SC8** The project owner shall submit to the CPM quarterly reports for the proceeding calendar quarter within 30 days from the end of the quarter. The report for the fourth quarter can be an annual compliance summary for the preceding year. The quarterly and annual compliance summary reports shall contain, at a minimum, the following information.
- (a) Operating parameters of emission control equipment, including but not limited to ammonia injection rate, NO<sub>x</sub> emission rate, and ammonia slip.
- ***No averaging periods specified (i.e., submit hourly data for each unit for each hour during each calendar quarter?)***
  - ***Violations of NO<sub>x</sub> limits required to be reported under Condition AQ-34; no need to report compliant data.***
  - ***Hourly NO<sub>x</sub> data already required to be reported to EPA in electronic format under Acid Rain program; CEC asks for same data, but in a different format.***
  - ***Ammonia slip is measured only during source tests; reporting of source test results is already required by Condition AQ-35.***
- (b) Total plant operation time (hours), number of startups, hours in cold startup, hours in warm startup, hours in hot startup, and hours in shutdown.
- ***There are no limits on plant operating hours, number of startups, number of hours in cold startup, number of hours in warm startup, number of hours in hot startup, or number of hours in shutdown. Hence, this information is not required to ensure compliance with any condition of certification.***
  - ***The terms "cold startup", "warm startup" and "hot startup" are not defined in the conditions of certification or in the FDOC.***
- (c) Date and time of the beginning and end of each startup and shutdown period.
- ***Violations of applicable startup and shutdown durations are required to be submitted pursuant to Condition AQ-34. There is no need to report compliance startups and shutdowns. Actual data are required to be maintained on-site for a period of five years by Condition AQ-33.***
- (d) Average plant operation schedule (hours per day, days per week, weeks per year).
- ***There are no limits on plant operating schedule – either hours per day, days per week, or weeks per year. Hence, this information is not required to ensure compliance with any condition of certification.***
- (e) All continuous emissions data reduced and reported in accordance with the District approved CEMS protocol.

- ***This condition is redundant with the requirements of Condition AQ-34.***
- (f) Maximum hourly, maximum daily, total quarterly, and total calendar year emissions of NO<sub>x</sub>, CO, PM<sub>10</sub>, VOC, and SO<sub>x</sub> (including calculation protocol).
  - ***Violations of maximum hourly, daily, quarterly, and annual emission limits are required to be reported on a quarterly basis pursuant to Condition AQ-34. There is no reason to report compliant data.***
  - ***Requested data is required to be collected and maintained on-site for a period of five years pursuant to Condition AQ-33.***
- (g) Fuel sulfur content (monthly laboratory analyses, monthly natural gas sulfur content reports from the natural gas supplier(s), or the results of a custom fuel monitoring schedule approved by the District).
  - ***Redundant with the requirements of the federal New Source Performance Standards contained in 40 CFR 60, Subpart GG.***
- (h) A log of all excess emissions, including the information regarding malfunctions/breakdowns.
  - ***Redundant with the requirements of Conditions AQ-5 and AQ-34.***
- (i) A log of excess visible emissions, including the information regarding malfunctions/breakdowns.
  - ***There are no conditions of certification related to visible emissions; hence, this information is not required to ensure compliance with any condition of certification.***
- (j) Any permanent changes made in the plant process or production, which would affect air pollutant emissions, and indicate when changes were made.
  - ***This condition is unreasonably vague. All changes in the plant process or production which would require a change to conditions are required to be reported to the CPM pursuant to Condition AQ-SC6. There are no conditions which limit changes to plant processes or operations other than those specified in the FDOC and CEC conditions; hence, this information is not necessary to ensure compliance with any condition of certification.***
- (k) Any maintenance to any air pollutant control system (recorded on an as-performed basis).
  - ***This condition is unreasonably vague and burdensome. There are no requirements in the FDOC or CEC conditions for maintenance to be performed on air pollution control equipment at specified intervals and, hence, this information is***

***not necessary to ensure compliance with any applicable condition of certification.***

In addition, this information shall be maintained on site for a minimum of five (5) years and shall be provided to the CPM or District personnel for review upon request.

- ***This condition is redundant with the requirements of Condition AQ-33.***

**Verification:** The project owner shall submit to the CPM, quarterly reports for the proceeding calendar quarter within 30 days from the end of the quarter. The report for the fourth quarter can be an annual compliance summary for the preceding year.

**Summary of Ammonia Slip Levels in Recent CEC Siting Cases**

Case	Project	Decision Date	PM10 Status		NH3 Limit		Comment
			Federal	State	FSA	Decision	
Mojave Desert Air Basin							
High Desert Blythe	97-AFC-1	3-May-00	nonattainment	nonattainment	10 ppm	10 ppm	
	99-AFC-8	21-Mar-01	nonattainment	nonattainment	10 ppm	10 ppm	
North Central Coast Air Basin							
Moss Landing	99-AFC-4	25-Oct-00	attainment	nonattainment	5 ppm	5 ppm	MBUAPCD requirement
Sacramento Valley Air Basin							
Sutter	97-AFC-2	14-Apr-99	attainment	nonattainment	10 ppm	10 ppm	
Three Mountain Power	99-AFC-2	16-May-01	attainment	nonattainment	5 ppm	5 ppm	Applicant proposed 5 ppm level
Cosumnes	01-AFC-19		nonattainment	nonattainment	5 ppm		SMAQMD requires 10 ppm
San Diego Air Basin							
Otay Mesa	99-AFC-5	23-Apr-01	attainment	nonattainment	10 ppm	10 ppm	
Palomar	01-AFC-24	-	attainment	nonattainment	5 ppm		Applicant proposed 5 ppm level
South Central Coast Air Basin							
Morro Bay	00-AFC-12	-	attainment	nonattainment	5 ppm	5 ppm	SLOAPCD requirement
South Coast Air Basin							
Mountainview	00-AFC-2	22-Mar-00	nonattainment	nonattainment	5 ppm	5 ppm	SCAQMD BACT requirement
Magnolia	01-AFC-6	12-Mar-03	nonattainment	nonattainment	5 ppm	5 ppm	SCAQMD BACT requirement is 5 ppm
El Segundo	00-AFC-14	-	nonattainment	nonattainment	5 ppm	5 ppm	SCAQMD BACT requirement
Inland Empire	01-AFC-17	-	nonattainment	nonattainment			SCAQMD BACT requirement is 5 ppm
San Francisco Bay Area Air Basin							
Los Medanos	98-AFC-1	17-Aug-99	attainment	nonattainment	10 ppm	10 ppm	
Delta	98-AFC-1	9-Feb-00	attainment	nonattainment	10 ppm	10 ppm	
Contra Costa	00-AFC-1	30-May-01	attainment	nonattainment	5 ppm	5 ppm	Applicant proposed 5 ppm level
Metcalf	99-AFC-3	5-Oct-01	attainment	nonattainment	5 ppm	5 ppm	Applicant proposed 5 ppm level
Valero	01-AFC-5	31-Oct-01	attainment	nonattainment	10 ppm	10 ppm	
Los Esteros	01-AFC-12	2-Jul-02	attainment	nonattainment	10 ppm	10 ppm	
Russell City	01-AFC-7	12-Sep-02	attainment	nonattainment	5 ppm	5 ppm	Applicant proposed 5 ppm level
Potrero	00-AFC-4	-	attainment	nonattainment	5 ppm		Applicant proposed 5 ppm level
Tesla	01-AFC-21	-	attainment	nonattainment			Applicant proposed 5 ppm level
East Altamont	01-AFC-4	-	attainment	nonattainment	5 ppm		PMPD indicates 10 ppm
San Joaquin Valley Air Basin							
La Paloma	98-AFC-2	6-Oct-99	nonattainment	nonattainment	10 ppm	10 ppm	
Pastoria	99-AFC-7	21-Dec-00	nonattainment	nonattainment	10 ppm	10 ppm	
Elk Hills	99-AFC-1	22-Dec-00	nonattainment	nonattainment	10 ppm	10 ppm	
Midway Sunset	99-AFC-9	26-Mar-01	nonattainment	nonattainment	10 ppm	10 ppm	
MID Woodland II	01-SPPE-1	20-Sep-01	nonattainment	nonattainment	10 ppm	10 ppm	
Sunrise II	98-AFC-4C	19-Nov-01	nonattainment	nonattainment	10 ppm	10 ppm	
Tracy	01-AFC-16	18-Jul-02	nonattainment	nonattainment	10 ppm	10 ppm	
San Joaquin Valley	01-AFC-22	-	nonattainment	nonattainment	10 ppm		



## **Numbered Exhibits**

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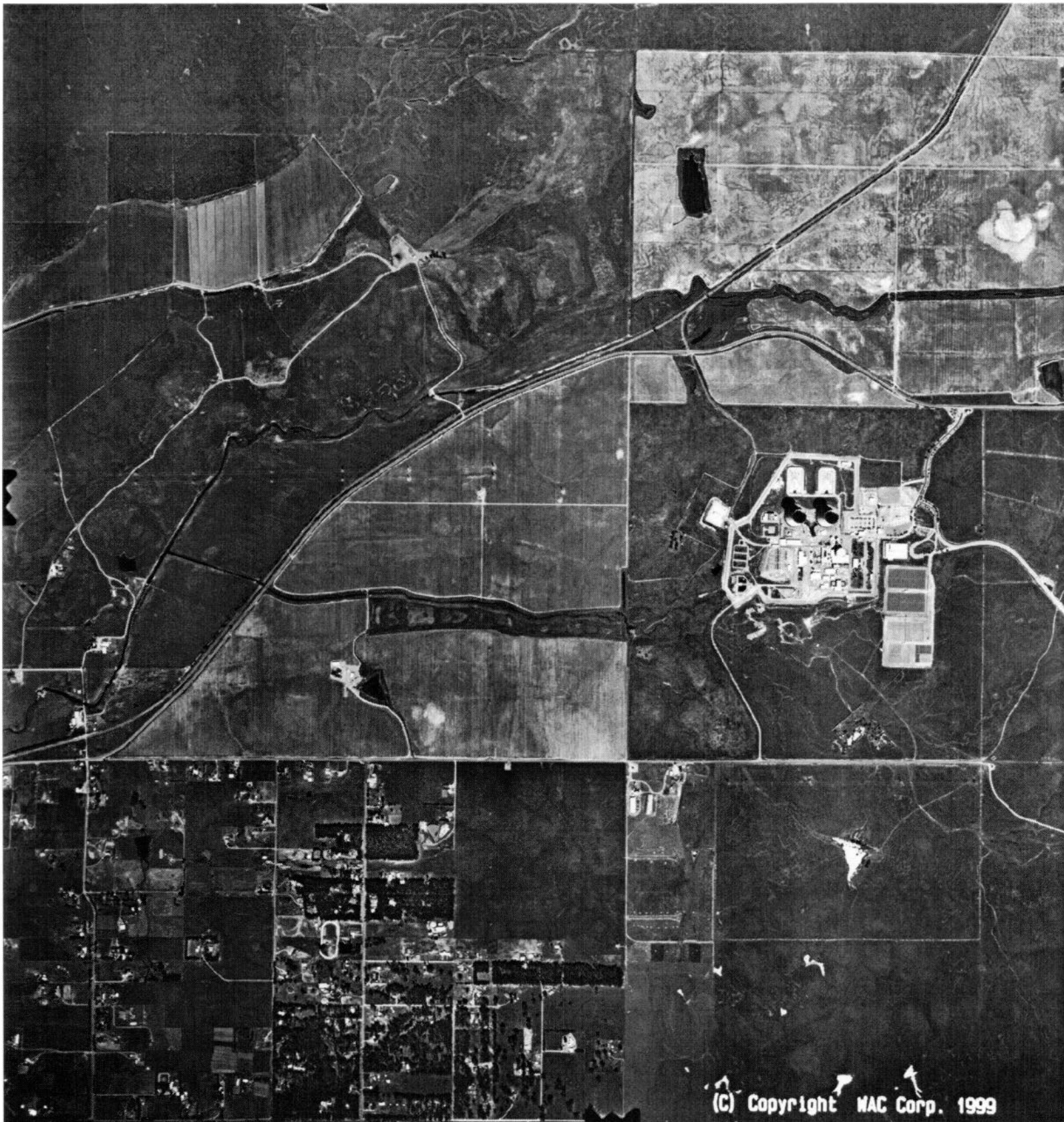


EXHIBIT 1

WAC-99CA





# CPP Operations Phase Traffic Projection

<u>Dayshift</u>	<u>Daily Round Trips</u>
✓ 3 Operations personnel	3
✓ 1 Plant Manager	1
✓ 1 Operations Manager	1
✓ 1 Maintenance Manager	1
✓ 1 Plant Engineer	1
✓ 1 Plant Administrator	1
✓ 1 Administrative Assistant	1
✓ 2 Instrument & Electrical Technicians	2
✓ 3 Maintenance Mechanics	2
✓ U.S. Mail	1
✓ Overnight courier (FedEx or UPS) – 3 times weekly	0.43
✓ Vendor site visits – approximately 3 weekly	0.43
✓ Owner's Asset Manager site visits – twice each week	0.29
✓ Aqueous Ammonia deliveries – twice each week	0.29
✓ Sodium Hypochlorite deliveries – twice each month	0.07
✓ Bulk or specialty chemical deliveries – twice each month	0.07
<u>Nightshift</u>	
✓ 2 Operations personnel	2
<u>TOTAL</u>	<u>17.58**</u>

\*\*17.58 round trips on a daily basis to and from CPP equates to, rounded to the nearest whole number, 35 individual trips. This compares to traffic count data submitted into the 01-AFC-19 record by SMUD in Data Response, Set 1M, dated July 18, 2002, which states "Currently, Clay East Road volumes are approximately 790 vehicles per day west of Kirkwood Road and 80 vehicles per day east of Kirkwood Road."

COSUMNES POWER PLANT  
GENERAL CONSTRUCTION SITE LAY OUT

